

Title (en)

EXTRUDER, GRANULE FEED, AND LIQUID ADDITIVE DISPENSER SYSTEM FOR 3D PRINTERS

Title (de)

EXTRUDER, GRANULATZUFUHR UND FLÜSSIGADDITIVABGABESYSTEM FÜR 3D-DRUCKER

Title (fr)

SYSTÈME D'EXTRUSION, D'ALIMENTATION EN GRANULÉS ET DE DOSAGE D'ADDITIF LIQUIDE POUR IMPRIMANTE 3D

Publication

**EP 4163084 A1 20230412 (EN)**

Application

**EP 21818249 A 20210607**

Priority

- ES 202030534 A 20200605
- ES 2021070414 W 20210607

Abstract (en)

An extruder, granule feed, and liquid additive dispenser system for 3D printers, comprising a mobile print head (1) with a substantially vertical extruder barrel (17) and a throat (18) which, at the upper area whereof, comprises a mobile funnel-shaped hopper (10') for the receiving of the granules (2) and a rotating internal worm (19). The mobile hopper (10') presents curved indentations (28) that progress inward in the rotational direction of the worm, seeking tangency to the mouth (29). The worm (19) comprises, as an extension to its thread (26), a drag shovel (20) complementary to the mobile hopper (10') with a sloping internal thrust face (27) that links with its cavity (25) and draws inward the granules contained in the hopper (10') via said indentations.

IPC 8 full level

**B29C 64/321** (2017.01); **B29C 64/165** (2017.01); **B29C 64/209** (2017.01); **B29C 64/314** (2017.01); **B29C 64/329** (2017.01); **B33Y 40/00** (2015.01)

CPC (source: EP ES US)

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**B29C 64/314** (2017.08 - EP ES); **B29C 64/321** (2017.08 - ES); **B29C 64/329** (2017.08 - EP ES US); **B33Y 30/00** (2014.12 - EP ES US);  
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Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**EP 4163084 A1 20230412; EP 4163084 A4 20241016**; ES 2884002 A1 20211209; ES 2884002 B2 20220411; MX 2022015312 A 20230116;  
US 2023226761 A1 20230720; WO 2021245319 A1 20211209

DOCDB simple family (application)

**EP 21818249 A 20210607**; ES 202030534 A 20200605; ES 2021070414 W 20210607; MX 2022015312 A 20210607;  
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